

REMARKS

Applicants have thoroughly considered the final Office action mailed on February 9, 2007. Although Applicants believe that the claims distinguish the cited art, claim 10 has been amended to recite "said participant selection control parameter being specified when the multimedia conference is set up and indicating a static display constraint on a selection of a video signal" to further distinguish the cited art. Claims 13-16 were amended to also further distinguish the cited art introducing specific types of participant selection control parameters. All other amendments to claims 10 and 12-16 have been amended to improve their readability, and not for any reason related to patentability. Claims 24-35 have been added by this Amendment G. Thus, claims 10-16, 18 and 24-35 are presented in the application for further examination. Reconsideration of the application claims as amended and in view of the following remarks is respectfully requested.

Claim Rejections under 35 U.S.C. § 112

Claims 1-5, 7, 9-16, and 18-23 stand rejected under 35 U.S.C. § 112 for being indefinite. With respect to claim 10, the claim was amended in Amendment F to recite "a video switching stream behavior." Claims 1-5, 7, 9 and 19-23 were canceled in Amendment F. Thus, the rejection of claims 1-5, 7, 9-16, and 18-23 should be withdrawn.

Claim Rejections under 35 U.S.C. § 101

Claims 1-5, 7, 9 and 19-23 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Claims 1-5, 7, 9 and 19-23 were canceled in Amendment F, thus the rejection should be withdrawn.

Claim Rejections under 35 U.S.C. § 103

Claims 1-7, 9-16, and 18-22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sandvoss et al U.S. Pat. No. 5,745,380 (Sandvoss) in view of Hayes-Roth U.S. Pat. No. 6,031,549 (Hayes-Roth).

Sandvoss discloses teleconferencing where the multimedia streams with the highest priority level streams are actively transmitted. In particular, Sandvoss et al. teaches that the weight used to determine priority is calculated from substream signals that are input to a process. (column 3, lines 53-58)

Applicants note that Hayes-Roth relates to animation and is non-analogous art and should not be combined with Sandvoss. Writing for the Supreme Court *KSR International Co. v. Teleflex, Inc.* U.S., No. 04-1350, 4/30/07, Justice Anthony Kennedy observed that a patent claim is obvious when the invention combines familiar elements according to known methods to produce no more than predictable results. To determine whether there was a "reason" to combine known elements as combined by a patentee, Justice Kennedy explained, a court will often have to look to (1) interrelated teachings of multiple patents; (2) the effects of demands known to the design community or present in the marketplace; and (3) the background knowledge possessed by a person having ordinary skill in the art. Sandvoss which relates to multimedia streams is not an interrelated teaching relative to Hayes-Roth which relates to animation so that reason (1) does not apply. Reason (2) is not applicable in the case. Finally, reason (3) suggests that the references should not be combined because background knowledge for multimedia streaming (i.e., Sandvoss) relates to transmission and does not overlap with background knowledge for animation (i.e., Hayes-Roth) which relates to image manipulation. Therefore, Applicants submit that there is no basis for combining Sandvoss which relates to multimedia streams and Hayes-Roth which relates to animation. Applicants request that Hayes-Roth be withdrawn as a reference. If Hayes-Roth continues to be a reference, Applicants request that the Examiner state the basis for combining it with Sandvoss.

Assuming for argument that Hayes-Roth is an analogous reference, it is deficient for the same reasons as Sandvoss. Hayes-Roth discloses a method for directing the behavior of an improvisational character. (column 6, line 28) Hayes-Roth defines an improvisational character as "any computer-controlled entity which is embodied in a computer-controllable medium such as computer graphics, animation, robotics, virtual reality, audio, video, film, or text." (column 6, lines 29-34) Additionally, Hayes-Roth teaches that character's activity state is updated whenever the character is directed "to

execute a behavior and whenever it receives a perception message packet from the animator indicating that the other character has executed a behavior." (column 14, lines 34-39) One column of the activity state table contains a corresponding weight for weighting the desirability value of a behavior. (FIG. 37, column 19, lines 8-11).

In contrast, claim 10, as amended, recites:

- a plurality of participants each providing multimedia conferencing data including a video signal and an audio signal;

- a client in conference with the participants, the client capable of receiving the video signal corresponding to one of the participants at a time;

- a participant selection control parameter stored in a memory for tuning a video switching stream behavior, wherein the participant selection control parameter affects the outcome of a weight computation, said participant selection control parameter being specified when the multimedia conference is set up and indicating a static display constraint on a selection of a video signal;**

- a participant state table stored in a memory and indicating an activity state variable for each participant, said activity state variable including values and statistics associated with the participant's video signal and audio signal; and

- a bridge server connected to the participants through a network and having a point-to-point connection with the client, the bridge server receiving simultaneously the multimedia conferencing data including the video signal from each of the participants, updating the activity state variable stored in the memory for each participant in the participant state table according to changes in the data information and the control information of the participant's video signal and audio signal, periodically computing a weight of said each participant based on the activity state variable of said each participant and the participant selection control parameter, identifying a participant having a highest weight among the participants, and selecting from the received multimedia conferencing data the video signal corresponding to the identified participant having the highest weight for transmission to the client for viewing.

As recited in claim 10, the participant selection control parameter is specified at set up of the multimedia conference and indicates a static display constraint on a selection of a video signal. Specifically, the participant selection control parameter is specified at set up and remains at the fixed value unless changed by the user. As shown in the example participant selection control parameters of Table 1, pages 18-19 of the specification, the participant selection control variables indicate static values, as opposed to dynamic values, and thus do not change unless specifically changed by a user. They

are not dynamic values changing over the time of the teleconference, but rather are fixed unless changed.

In contrast, Sandvoss, such as at col. 5, lines 35-46, describes using the amplitude $\text{loud}(s_i, t)$ of an audio substream and the time $A(s_i)$ since the stream was last active to determine a weight:

In a preferred embodiment of the invention the importance of streams i.e. the priorities of the streams are determined by a weighing function 35

$$G_{\text{audio}}(s_i, t) = A(s_i) \left[1 + \frac{\text{loud}(s_i, A(s_i))}{\text{loud}_{\text{max}}} \right] \quad 46$$

comprising the amplitude $\text{loud}(s_i, t)$ of an audio substream and a parameter $A(s_i)$ which describes the last time when a stream has been active. Herein the weighing function is only dependent on the corresponding audio substreams and the time. 45

These variables are both dynamic, i.e., changing over time based on the input signals. In fact, Sandvoss teaches away from static variables and states that the weighing function is "dependent on the corresponding audio substreams and the time" (line 46). The weighing function of Sandvoss is not based on a static value and is not a value which is specified at set up of a multimedia conference. As such, Sandvoss does not teach or suggest a participant selection control parameter as recited in claim 10 that affects the outcome of a weight computation, the participant selection control parameter being specified when the multimedia is set up, much less indicating a static display constraint on a selection of a video signal.

Hayes-Roth, directed to animation, does not cure the defects of Sandvoss. The Examiner points to column 23, lines 50-65 to cure the deficiencies of Sandvoss:

of the attribute values have been evaluated.

In step 514, the desirability rating of the lead behavior node is updated in dependence upon the character's current activity state. The node's desirability value and the corresponding activity state weight are fetched from the appropriate activity state table, as shown in FIG. 37. The desirability rating is updated according to equation (5):

$$\text{Desirability Rating} = \text{Desirability Rating} + [\text{Desirability Value} * (\text{Activity State Weight})] \quad (5)$$

The desirability rating is set equal to its current value plus the product of the node's desirability value and the corresponding activity state weight. Also in step 514, the total weight variable is set equal to its current value plus the activity state weight. Following step 514, the function proceeds to step 516.

In particular, the Examiner argues that Hayes-Roth teaches providing a participant state table including an activity state variable for each participant. However, the desirability ratio, desirability value and the activity state weight are neither the claimed participant selection control parameter nor the activity state variable for each participant. Specifically, the desirability rating in column 23, lines 50-65 of Hayes-Roth is dynamic, i.e., changing over time based on changes to the desirability value and the activity state weight. The activity state weight and the desirability value of Hayes-Roth are shown in Table 37 and described in Hayes-Roth at col. 19, lines 1-10. Although these variables appear to be static variables, they are not variables that indicate a display constraint of a selection of a video signal, but rather indicate attributes of a particular behavior node. Thus, Hayes-Roth does not cure the defects of Sandvoss since it does not teach or suggest the participant selection control parameter as recited in claim 10.

Accordingly, for at least the reasons noted above, Sandvoss and Hayes-Roth, either taken separately or in combination do not anticipate or make obvious the claimed invention as these references fail to teach various aspects of the invention, including for example the static values. Thus, claim 10 is patentable over Sandvoss in view of Hayes-Roth and should be allowed.

Furthermore, claims 11-12, 18, 34, 35 depend from claim 10 and are allowable for at least the same reasons as claim 10. The Examiner has not considered these claims, arguing that they do not contain further limitations. Applicant's disagree and request that the Examiner consider each of these claims and indicate the particular reasons for the rejection, if the claims continue to be rejected. For example, claims 13-16 recite, among

other things, determining a shown length of time and setting the weight as a function thereof. The last active time of Sandvoss does not relate to shown length of time so that claims 13-16 should be allowed. Also, the desirability rating of Hayes-Roth does not relate to shown length of time so that claims 13-16 should be allowed.

Additionally, claim 24 recites subject matter which is allowable because the prior art is deficient for at least the reasons noted above. For example, claim 24 recites specifying a participant selection control parameter for the multimedia conference when the conference is being set up wherein the participant selection control parameter indicates a static display constraint of selecting the video signal. As noted above, Sandvoss and Hayes-Roth, either separately or in combination, do not set up such a static parameter of selecting a video signal. Applicants request that the Examiner allow claim 24 or specifically point to the elements and teachings of Sandvoss and Hayes-Roth which make claim 24 obvious.

Furthermore, claims 25- 33 depend from claim 24 and are allowable for at least the same reasons as claim 24.

In view of the foregoing, Applicants submit that independent claims 10 and 24 are allowable over the cited art. The claims depending from these claims are believed to be allowable for at least the same reasons as the independent claims from which they depend.

It is felt that a full and complete response has been made to the Office action and, as such, places the application in condition for allowance. Such allowance is hereby respectfully requested. Although the prior art made of record and not relied upon may be considered pertinent to the disclosure, none of these references anticipates or makes obvious the recited invention. The fact that Applicants may not have specifically traversed any particular assertion by the Office should not be construed as indicating Applicants' agreement therewith.

Filed simultaneously herewith is a request for an interview. Applicants request that the Examiner conduct an interview before issuing any further Office actions.

Applicants wish to expedite prosecution of this application. If the Examiner deems the application to not be in condition for allowance, the Examiner is invited

and encouraged to telephone the undersigned to discuss making an Examiner's amendment to place the application in condition for allowance.

The Commissioner is hereby authorized to charge any deficiency or overpayment of any required fee during the entire pendency of this application to Deposit Account No. 19-1345.

Respectfully submitted,

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